

Claims

1. Envelope-filling station having an envelope-filling bench (5) which is added onto a push-in station (2) of a mail-processing machine, in which enclosures or sets of enclosures are conveyed into the push-in station (2) by means of a conveyor (1) and are pushed into envelopes (30) by means of a push-in arrangement (3), said envelopes being conveyed by means of an envelope-conveying arrangement (4), on the envelope-filling bench (5), into a position opposite the push-in arrangement (3) and being opened there and held ready for receiving the enclosures or sets of enclosures and, once filled, being conveyed further, characterized in that the envelope-conveying arrangement (4) contains a circulating envelope-conveying belt (6), of which the top strand is guided over the envelope-filling bench (5) and is oriented transversely to the push-in direction, in that a roller bar (10) equipped with spring-mounted rollers (13) can be lowered onto the top side of the top strand of the envelope-conveying belt (6), and raised from it, in a controlled manner, in that stop means (24) are arranged along the top strand of the envelope-conveying belt and can be brought into an active position directly above the level of the envelope-filling bench, and removed therefrom into an inactive position, in a controlled manner, such that envelopes (30) which have been conveyed up are brought to a standstill in a position opposite the push-in arrangement (3) with the stop means (24) active and with the roller bar (10) lowered, are filled with the roller bar (10) raised and are conveyed further with the stop means (24) inactive and the roller bar (10) lowered again, and in that at the beginning of the top strand of the envelope-conveying belt (6), by means of an auxiliary conveying arrangement (14), envelopes can be conveyed up, separately against in particular adjustable stops (23) from a horizontal direction perpendicular to the running direction of the top

strand of the envelope-conveying belt (6), such that subregions of the respective envelope which has run up against the further stops (23) extend into the gap between the raised roller bar (10) and the beginning of the top strand of the envelope-conveying belt (6) such that, when the roller bar (10) is lowered against the top strand of the circulating envelope-conveying belt (6), the relevant envelope is drawn in front of the push-in arrangement (3) in the conveying direction of said envelope-conveying belt.

2. Envelope-filling station according to Claim 1, characterized in that the operation of feeding the separated envelopes (30) out of an envelope-separating station from a horizontal direction perpendicular to the running direction of the top strand of the envelope-conveying belt (6) takes place by means of an auxiliary conveying belt (17) and abutment rollers or abutment belts interacting therewith.

3. Envelope-filling station according to Claim 1 or 2, characterized in that the roller bar (10) has a beam-like carrier housing which is coupled to drive means (11) for raising and lowering it and on which spring tongues (32) or pairs of leaf-spring elements are anchored (33), these retaining bearings (34) for supporting on both sides the journals of disc-like, comparatively large-diameter rollers (13).

4. Envelope-filling station according to Claim 3, characterized in that at least one of the spring tongues or leaf-spring pairs bears, on spring sections (35) extending from the anchoring locations (33), starting from the bearings (34), suction-cup arrangements (36, 37) which are connected to a vacuum source via flexible vacuum lines and controllable valves and of which the suction-cup openings, with the roller bar (10) raised off from the top strand of the envelope-conveying belt (6), extend down at least to the level of the lowermost circumferential regions of the rollers (13), and with the roller bar (10) lowered onto the top strand of the envelope-conveying belt (6)

and the rollers (13) loaded, with spring-tongue deformation or leaf-spring deformation taking place in the process, are raised by way of the spring sections (35), above the level of the lowermost circumferential regions of the rollers (13), the suction-cup arrangement (36, 37) serving for opening and keeping open the envelopes during the actuation of the push-in arrangement (3).

5. Envelope-filling station according to Claim 3 or 4, characterized in that the carrier housing of the roller bar (10) and the spring tongues or leaf-spring pairs are designed in one piece, in particular as a plastic injection moulding.